

CIS*2520 Data Structures (0.5) Fall 2018

Instructor

Fangju Wang, Reynolds 3304, X52939, fjiang@uoguelph.ca

Advisory Hours

XXday 00:00 – 00:00

XXday 00:00 – 00:00

Lab Schedule

0101: Mon 02:30pm-04:20pm MCKN233	0102: Thur 11:30am-13:20pm MCKN238
0103: Tue 11:30am-01:20pm MCKN238	0104: Fri 02:30pm-04:20pm MCKN233
0205: Fri 09:30am-11:20am MCKN238	0206: Mon 09:30am-11:20am MCKN238
0207: Fri 03:30pm-05:20pm MCKN118	0208: Wed 02:30pm-04:20pm MCKN232

Teaching Assistants

TAs: XXX, XXX, XXX

Email: ta2520@socs.uoguelph.ca Advisory hours: TBA.

Calendar Description

This course is a study of basic data structures, such as lists, stacks, queues, trees, and tables. Topics which will be examined include abstract data types, sequential and linked representations, and an introduction to algorithm analysis; various traversal, search, insertion, removal, and sorting algorithms.

Course Objectives and Topics

Students will learn concepts of the commonly used data structures, as well as their representations and uses, and algorithms for manipulating the structures. The emphasis is on the use of data structures in software development and evaluation of alternative implementations. Students will acquire skills of designing and implementing abstract data structures and applications in C. The topics include

- Review of C, pointers, recursion, etc.
- Introduction of algorithm analysis
- Stacks, queues, strings, lists, trees, and graphs
- Dictionaries and hashing
- Searching and sorting

Prerequisites

CIS*2500, (CIS*1910 or ENGG*1500)

Recommended Textbook

- T. A. Standish, *Data Structures, Algorithms & Software Principles in C*, Addison Wesley.

Course Web Page URL

moodle.socs.uoguelph.ca

Assignments and Examinations

- Four assignments: $7\% + 7\% + 8\% + 8\% = 30\%$
- Midterm examination: 20%
- Final examination: 50%

The **late policy** for assignments: **NO** late assignment will be accepted.

Assignment and Examination Dates, and Extra Class Days

- Assignment due dates:
 1. Assignment 1: September 24, 2018
 2. Assignment 2: October 15, 2018
 3. Assignment 3: November 5, 2018
 4. Assignment 4: November 26, 2018
- Midterm examination: October 00, 2018 (00:00 – 00:00).
- Final examination: December 00, 2018 (00:00 – 00:00).
- November 29 (Thursday), Classes rescheduled from Tuesday, October 9.
- November 30 (Friday), Classes rescheduled from Monday, October 8.

Statements

- **E-mail Communication**

As per university regulations, all students are required to check their <mail.uoguelph.ca> e-mail account regularly: e-mail is the official route of communication between the University and its students.

- **When You Cannot Meet a Course Requirement**

When you find yourself unable to meet an in-course requirement because of illness or compassionate reasons, please advise the course instructor (or designated person, such as a teaching assistant) in writing, with your name, id#, and e-mail contact. See the undergraduate calendar for information on regulations and procedures for Academic Consideration.

- **Copies of Out-of-class Assignments**

Keep paper and/or other reliable back-up copies of all out-of-class assignments: you may be asked to resubmit work at any time.

- **Accessibility**

The University promotes the full participation of students who experience disabilities in their academic programs. To that end, the provision of academic accommodation is a shared responsibility between the University and the student.

When accommodations are needed, the student is required to first register with Student Accessibility Services (SAS). Documentation to substantiate the existence of a disability is required, however, interim accommodations may be possible while that process is underway.

Accommodations are available for both permanent and temporary disabilities. It should be noted that common illnesses such as a cold or the flu do not constitute a disability.

Use of the SAS Exam Centre requires students to book their exams at least 7 days in advance, and not later than the 40th Class Day. More information: www.uoguelph.casas/.

- **Academic Misconduct**

The University of Guelph is committed to upholding the highest standards of academic integrity and it is the responsibility of all members of the University community faculty, staff, and students to be aware of what constitutes academic misconduct and to do as much as possible to prevent academic offences from occurring. University of Guelph students have the responsibility of abiding by the University's policy on academic misconduct regardless of their location of study; faculty, staff and students have the responsibility of supporting an environment that discourages misconduct. Students need to remain aware that instructors have access to and the right to use electronic and other means of detection.

Please note: Whether or not a student intended to commit academic misconduct is not relevant for a finding of guilt. Hurried or careless submission of assignments does not excuse students from responsibility for verifying the academic integrity of their work before submitting it.

Students who are in any doubt as to whether an action on their part could be construed as an academic offence should consult with a faculty member or faculty advisor.

The Academic Misconduct Policy is detailed in the Undergraduate Calendar.

- **Recording of Materials**

Presentations which are made in relation to course work including lectures cannot be recorded or copied without the permission of the presenter, whether the instructor, a classmate or guest lecturer. Material recorded with permission is restricted to use for that course unless further permission is granted.

- **To Appeal a Mark**

To appeal a mark of an assignment or the midterm examination you must do so within two weeks after it is returned.